Department of Energy

Bonneville Power Administration
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TRANSMISSION BUSINESS LINE

August 25, 2004

In reply refer to: TMF-MODD

Steven Marshall
Assistant General Manager
Power & Transmission Services
Snohomish PUD
P.O. Box 1107
Everett, WA 98206

Dear Mr. Marshall:

Thank you for your July 29th inquiry asking for more detailed information on 2004 Programs in Review and the 2006 Transmission Rate Case. We are happy to provide the information. To make the questions and answers easy to follow, we have replicated your questions and then inserted our answers.

1) Has BPA done any studies, evaluations, analyses or assessment of the feasibility and/or costs of BPA performing some or all of the functions that would be the responsibility of a regional transmission organization, such as establishing and operating a single OASIS, performing regional transmission planning and expansion, and maintaining a single queue for long-term transmission service? If so, please provide a copy of any such study, evaluation, analysis or assessment.

   - There have been no studies of this type. It would only be possible for BPA to perform some or all of the functions of a regional transmission organization if we did so at the request of, and with the cooperation of, the other major transmission owners and operators in the Pacific Northwest. Because those entities have not made such requests or indicated such interest, we have not considered whether we should undertake such studies.

2) Has BPA done any transmission expansion project studies, plans, analysis, or reports using non-wires solutions?

   - Yes. BPA has facilitated a round table committee to explore non-wires alternatives to solve problems. Together, we developed screening criteria to test transmission solutions against non-wires alternatives and explored ways to remove institutional barriers to implementation of non-wires solutions.

   - Secondly, we have developed pilot projects to test non-wires solutions. Currently, TBL has three pilots underway, the Olympic Peninsula Demand Exchange, Celerity Distributed Generation Aggregation and Ashland Load Dispatch Aggregation. BPA is also seeking solicitation for new pilots to be tested during 2004 and implemented in 2005 and 2006. The Non-Wires Round Table team continually looks for other opportunities and is studying the effects of bio-diesel fuel for back-up generation. Other pilots BPA is studying include:

irrigation load management, peak shaving in Richland public buildings, transactive controls in commercial offices and micro-turbine at the Pacific Northwest Laboratory.

- In November 2001, BPA asked a team of experts to review the transmission planning process. Their report, **Expansion of BPA Transmission Planning Capabilities** is available on the web at http://www.transmission.bpa.gov/PlanProj/bpa_tbl_planning.pdf. Subsequently, as part of the Kangley-Echo Lake Environmental Impact Statement, an analysis of non-wires solutions was developed. That study, **Kangley Echo Lake Economic Screening and Sensitivity Analysis Report,** is also available on the web http://www.transmission.bpa.gov/PlanProj/Non-Construction_Round_Table/NonWireDocs/KELReport.pdf

3) Has BPA successfully implemented any transmission expansion projects using non-wires solutions?

- Yes. In two cases BPA successfully implemented non-wires solutions as part of a fix for transmission limitations. The Puget Sound Electric Reliability Plan was launched in 1989 to address voltage stability problems and other limitations in the area. The initial proposal was to build a double-circuit 500-kV line across the Cascades at a cost of about $200 million. After extensive evaluation involving BPA customers and other interested parties in the area, including Snohomish PUD, a plan was implemented that included the new Schultz Substation, series compensation, and targeted conservation in the area to reduce transmission demands. Because of those upgrades, there are still no plans to build a cross-Cascades line in the near future.

- When the San Juan Islands cable #3 failed in November 1994, it was recognized that planning and installation of a replacement cable would take time. In order to minimize the potential for outages with another cable failure, BPA undertook a Demand Reduction Program in conjunction with OPALCO. BPA funded a water heater load management program (~1000 kW) in addition to an on-going electric heat management program (~500 kW). In conjunction with on-island generation, reliability was maintained until the replacement cable was completed in May 2002.

4) Has BPA done any studies, assessments, evaluations or analysis that would identify how deficient the existing transmission system is relative to the system being based upon the strict implementation of existing reliability standards, and what would be required to bring the existing system into compliance? If so, please provide a copy of any such study, evaluation, analysis or assessment.

- Yes. BPA does perform periodic system screening to evaluate the system performance against existing reliability standards. This year the screening studies were performed under the NWPP NTAC group. The results of these screening studies were then sent to all members of the NTAC group, which included John Martinsen from Snohomish PUD. These screening study results can be sent again if needed.

5) Has BPA done any studies, assessments, evaluations or analysis on the cost to BPA to implement existing regional transmission system reliability standards based upon the strict interpretation of

those standards? If so, please provide a copy of any such study, evaluation, analysis or assessment.

- BPA continues to evaluate system performance and the cost associated with stricter adherence with the reliability standards. Not all identified standard violations have been addressed to develop solutions at this time. Therefore, we do not have an overall cost associated with the system improvements to fully meet the reliability standards. However, we are working toward developing solutions to all the identified violations. We have forecasted $10 million in our budget per year for the next few years for system improvements to meet these standards.

6) Has BPA done any studies, assessments, evaluations or analysis on the cost to BPA to implement new enhancements to system reliability standards that are presently under consideration by NERC and/or WECC? If so, please provide a copy of any such study, evaluation, analysis or assessment.

- No, we have not evaluated the cost of implementing the proposed new enhanced reliability standards, because they have not been adopted.

7) Has BPA done any studies, assessments, evaluations or analysis that would identify how deficient the existing transmission system is relative to the new enhancements to system reliability standards that are presently under consideration, and what would be required to bring the existing system into compliance with those enhanced standards? If so, please provide a copy of any such study, evaluation, analysis or assessment.

- No, we have not evaluated the system performance against the proposed new enhanced reliability standards, because they have not been adopted.

8) TBL indicated that it was pursuing a variety of new initiatives to realize efficiency gains, control costs, and reduce costs. What new initiatives have been implemented to date?

To gain efficiencies and control costs on the capital side, BPA-TBL has:

- Implemented in FY2004 Red/Yellow Flag Process for Capital Projects to proactively monitor capital costs and continued this process in FY2005.
- Created an interface between our enterprise system (BES) and MS Project providing a tool to better manage capital projects.
- Created an FY2005 capital evaluation and funding process adding a probability of occurrence of an adverse event occurring if a project is not funded and completed. The level of consequence risk assessment component was also incorporated into the economic analysis.
- Various TBL functional teams have implemented improved processes for prioritizing capital needs.
- Implemented improved processes within the supply chains. This will be covered in greater detail at the afternoon August 25th workshop
- Continued the sale of low voltage facilities.
- Implemented improved systems for metering of power delivery.
- Conducted benchmarking efforts.

- Committed to timely work order completion resulting in reducing AFUDC charges to projects.
- Reviewed actual project costs to estimated costs for the purpose of assuring better estimate accuracy.

9) TBL indicated that it was pursuing a variety of new initiatives to realize efficiency gains, control costs, and reduce costs. What efficiency gains, controls, or cost reductions in expenses have been assumed in the development of the cost of TBL's program levels?

- The table below details the annual reductions taken in FY2003 and FY2004 on TBL programs. FY2003 reductions are calculated as the difference between FY2002 spending and FY2003 spending; these are reductions that were realized by the TBL.

- FY2004 reductions are calculated as the difference between the originally requested budgets and the finalized targets (Start Of Year Budget) for FY2004. These are savings expected by the end of the fiscal year.

- Sustainability will be based on system conditions and strategic direction of the agency. The reductions reflected above are expected to be sustainable except in the following areas: security enhancements, right-of-way maintenance, non-electric plant maintenance, restoration of employee awards, implementation of Grid West and research & development.

TRANSMISSION PROGRAM	REDUCTIONS		BRIEF DESCRIPTION ON COST CUTTING MEASURE
	FY03 ($MM)	FY04 ($MM)	
Operations	(0.3)	(1.4)	Control Center Support
Marketing	0.9	(2.4)	Marketing IT Support
Maintenance	(4.8)	(13.0)	Non-Electric Plant, Transmission Line, Right Of Way, and System Protection
Environment	(0.9)	0.0	
System Development	(11.1)	(3.4)	Research and Development, Transmission System Development Planning, Settlements
Support Services	(3.1)	(4.6)	Logistics, Information Technology and Heavy Equipment Maintenance
Scheduling	(0.6)	(0.4)	Technical Support
General & Administrative (less CSRS)	(10.2)	(5.9)	Awards and General Administrative costs
Corporate Costs	0.4	0.0	
Between Business Line Costs	4.7	(3.5)	Ancillary Services

Transmission Services	(0.9)	0.0	
Undistributed Cost Reductions		(7.0)	Cuts taken through efficiencies during the year
TOTAL	**(26.0)**	**(41.7)**	

Using FY2004 as the base level of effort, TBL held FY2005 at the same level (no inflation adjustment and no increase to program costs). For FY2006, FY2005 program levels were increased by 3 percent for inflation and for:

- Security enhancements for transmission infrastructure,
- Right-of-way maintenance to reduce critical backlog,
- Non-electric plant maintenance to reduce critical backlog,
- Restoration of employee awards at a reduced level,
- Costs associated with Grid West to decision point 4, and
- Research & development to restore funding for EPRI dues and projects.

For FY2007 budget planning, TBL held to the FY2006 levels with no increase for inflation and conducted a review of the proposed increases from FY2006 budget levels. As a result of that review, TBL made the following determinations for FY2007: right-of-way, non-electric plant, and Grid West program levels were reduced; awards and research & development were increased; security was held constant for FY2007.

10) TBL indicated that it was pursuing a variety of new initiatives to realize efficiency gains, control costs, and reduce costs. When can we expect to see these efficiencies, controls and cost reductions reflected in TBL program levels?

- The efficiencies that are expected from asset management have been incorporated into PIR and that is why there is no increase for inflation from FY2005 to FY2006. In addition the staffing plan objective to reduce TBL FTE by 200 by the start of FY2008 also takes into account expected efficiencies.

11) How many Transmission Projects and to what dollar amounts has BPA committed to and/or plans to finance through the use of 3rd Party Financing in addition to the Schultz – Wautoma transmission project?

- Currently there are no assumptions for additional third party financing on any transmission projects. The only third party financing assumed in the revenue requirements is the Schultz Wautoma transmission project. We continue to evaluate third party financing options.

12) For all transmission projects that BPA has committed to finance through use of 3rd Party Financing in addition to the Schultz – Wautoma transmission project, provide information on the terms and conditions and interest rates of the commitments.

- Currently there are no assumptions for additional third party financing. We continue to evaluate third party financing options.

13) For all G-20 projects, provide an updated construction schedule that indicates the current project status, including timeline for completion and current cost estimate. Explain any differences in project status, including timelines and cost estimates from the proposed TBL capital plan.

- Below is a table summarizing the current construction schedule, project status, estimate and timeline for completion for the remaining G-20 projects. The information is current as of August 2004. The data reflects the proposed TBL capital plan.

	PROJECT	CURRENT ENERG. DATES (8/2004)	CURRENT LOADED COST ESTIMATES ($ in millions) (8/04)
G1	Puget Sound Area Add.	ENERGIZED	$74.7
G2	N. of Hanford/N. John Day	Dec-05	$174.6
G3	West of McNary	ON HOLD	$167.0
G4	Starbuck Gen. -	CANCELLED	
G5	Lo Mo & MCN Area Gen (Phase II)	CANCELLED	
G6	Cross Cascade North	ENERGIZED	$17.6
G7	Celilo Modernization	ENERGIZED	$55.9
G8	I-5 Corridor Gen. Additions	ON HOLD	$124.8
G9	Spokane/W. Montana Gen Add.	Dec-04	$174.5
G10	Portland Area Additions	ENERGIZED	$14.7
G11	Puget Sound Additions (Ph. 2)	2010	$32.5
G12	Olympic Peninsula Add. (Ph. II)	2007	$32.1
G13	I-5 Corridor Generations Add.	ON HOLD	$172.3
G14	N. John Day/Portland Rein. Ph. I	2012	$122.9
G15	W. of Noxon Rein. Phase I	2012	$86.5
G16	Lo Mo & MCN Area Gen.	CANCELLED	
G17	W. Spokane/Lewiston Rein. Ph II	CANCELLED	
G18	Pacific NW-Idaho (Phase I)	CANCELLED	
G19	Pacific NW-Idaho (Phase II)	CANCELLED	
G20	W. of Noxon Rein. (Phase II)	2012	$86.9
	TOTAL		$1,337.0

14) What transmission availability is projected for the BPA Northern Intertie ("NI") transmission customers?

- TBL designs its transmission system to meet WECC guidelines. BPA's transmission system in the Puget Sound area currently meets those guidelines. WECC allows for curtailments of transmission service in certain situations in its planning guidelines. Specific language in WECC's System Adequacy and Security section of NERC/WECC Planning Standards indicates that planned/controlled curtailments are allowable for events resulting in the loss of

two or more elements. This is allowed to maintain the overall security of the interconnected transmission system.

15) How many hours of transmission curtailments will Puget Sound Utilities be exposed to as a result of NI Operating Transfer Capability ("OTC") reductions? If there are curtailments, what magnitude in MW should Puget Sound electric utilities expect?

- It is not possible to project how many hours of transmission curtailments there might be in the Puget Sound area in a given period of time. Nor is it possible to project the magnitude of transmission curtailments. The frequency, duration, and magnitude of curtailments depends on a number of factors: temperature in the Puget Sound area, load in the Puget Sound area, which generators in the Puget Sound area are operating, the specific transmission outage, the level of transfers into and out of British Columbia, time that an outage occurs, etc.

16) Does BPA have a standard or benchmark for transmission availability limits for firm transmission service?

- Currently there is no industry standard or benchmark for firm services. BPA is aware of WECC's efforts to develop the definition and business practice of the term "Firm." BPA will continue to follow its tariff provisions. The ATC methodology was reviewed in several public customer meetings and input. BPA is aware of WECC's procedures and the current methodology that was developed with the customers complies with WECC procedures.

17) With respect to spending on Grid West development, identify

a. How much has been spent by BPA to date and over what period of time
b. How much funding has been committed to by BPA in this regard
c. How much funding is included in TBL's upcoming rate case revenue requirement

Include in these figures, a breakdown between direct cost and indirect adders and indicate who, between PBL & TBL, is paying for what and in what amounts.

- For FY2003, BPA's total internal and external expenses for support of Grid West came in at just over $1.6 million. Please note this only captures the nine months of the function being in Corporate. The other three months the costs were internal to the TBL as the function was then in TBL. The costs during that time period were not explicitly tracked by work order for employees' time.

- The total costs to BPA are expected to be about $2.5 million for FY2004. This includes both the internal (overhead, BPA personnel, shared services, etc.) and external (the $2.5 million RTO funding agreement of which BPA's share is 22.5% or approx $625,000 and some other activities like GTA work, NTAC planning, SSG-WI and resource adequacy work). It's a coincidence that the funding agreement amount and BPA's total costs are the same. The costs are split between the TBL (historically 60%) and PBL (historically 40%).

- For FY2004, the current $2.5 million external funding agreement amount is sufficient to cover the additional activities of Grid West which includes executing a new Krogh &

Leonard contract (the current contractor serving as the Grid West Coordinating Team) and executing a new contract with the Structures Group which has been hired to develop the technical details of the Beginning State of the Regional Proposal. If, at Decision Point 1 in October, the RRG decided to go forward, a search firm to look for candidates for the Developmental Board (Decision Point 2) will be hired and that cost will also be funded in this existing $2.5 million funding.

- For FY2005 and FY2006, total costs to BPA (again including both the internal and external costs) are budgeted to be about $4.5 million each year. Again, these costs will be split between the business lines. The increases for FY2005 and FY2006 would be needed to fund the developmental phase if a decision is made to seat the Developmental Board at Decision Point 2 in early calendar year 2005. Increases would occur in external costs (e.g., funding the board members hired for the Developmental Board, and technical work/studies, etc.) and internal costs (e.g., risk/reward work, internal system analysis, consolidated control area and scheduling coordinator work).

- As with all external costs, BPA's proportionate share of the Structure Group's costs is expected to continue to be about 22.5% and again, the costs will continue to be split among the business lines. The business lines do not further split it out into line items where you can see the actual amount budgeted just for the Structures Group costs.

In addition to responding to these questions, we would like to request Workshop content that addresses <u>in depth</u>:

1) Current Debt Optimization activities and both their short and long term impacts on TBL program levels

   - On August 5th revenue financing, Energy Northwest refinancing and debt reassignment, 3rd party financing, Treasury borrowing, and the long term effects of debt optimization were covered. PIR staff promptly notified Snohomish PUD via e-mail of this workshop.

2) The Canadian Entitlement situation including but not limited to BPA's efforts to address a long term solution, recognition of cost impacts to West of Cascade utilities affected by BPA's commitments in this regard and measures considered by BPA to mitigate those impacts on West of Cascade utilities.

   - TBL staff and executives have been meeting regularly with Puget Sound area utilities (including Snohomish County PUD, Seattle City Light, Puget Sound Energy), Powerex, BC Transmission Corporation, Alcoa Intalco, the U.S. Entity, the Canadian Entity, and BPA's Power Business Line to discuss the availability of transmission to serve all of the loads for which the TBL is obligated to provide transmission service. These meetings have been both of a technical and policy nature. There were meetings in December 2003; twice in February 2004; April 16, 2004; May 19, 2004; and August 11, 2004. In between these formal meetings there have been numerous conference calls, e-mails, etc. between and among the parties. We have tentatively scheduled another policy meeting for Thursday, September 30, 2004. Between now and then, there will be several technical meetings to address issues related to

the procedure that TBL uses to determine and allocate needed curtailments. We believe that these meetings are the appropriate forum to address the issues you raise here.

- Intensive efforts have been underway since late January of this year to implement more effective measures to reduce transmission use under certain outage conditions that minimize the impact on transmission users to the extent possible. To this end, the procedure was substantially modified early in the year. For this summer, the BPA PBL and Powerex made arrangements for energy transfers that could be implemented to reduce the probability of having to curtail transmission use during these outage conditions. Work is underway to assure effective interim procedures are ready when these arrangements expire at the end of October 2004. Work has begun in earnest in the Constrained Schedule Management Work Group under BPA's Business Practices Technical Forum to develop a long term effective solution to manage transmission use on constrained internal transmission paths that will be applicable to the entire BPA grid including the Puget Sound area. This group is open to any BPA customers BPA hopes to implement the method this group develops as early as possible in 2005.

3) TBL Revenue Requirement development detailing expected cost increases and the reason for them, that contribute to the projected TBL rate increase.

- At the August 5th Rate Case Workshop we covered the revenue requirement.
- On August 26th at an additional Rate Case Workshop the revenue forecast will be covered.

You wrote that "the ability to examine and contest costs used to establish a utility's revenue requirement is a fundamental precept of utility regulation that is designed to protect utility service customers from paying inappropriate charges." BPA's approach is to develop customer relationships through communication about issues. That communication includes the kind of open processes that provide for letters such as yours, and the ability to discuss BPA's programs and expenses. We do not believe that increasing adversarial-type processes would strengthen those relationships, nor would it necessarily result in more protection of customers' interests.

We hope this information is responsive to your request. Should you have any further questions, please contact our PIR staff, Madonna Radcliff, Rebecca Fredrickson, or you may contact me directly.

Sincerely,

/s/ Vickie VanZandt 8/25/04

Vickie VanZandt
Senior Vice President
Transmission Business Line